

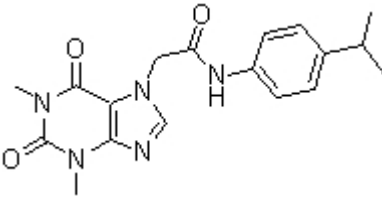


Product Introduction

HC-030031

HC-030031 is a selective **TRPA1** channel blocker that antagonizes AITC- and formalin-evoked **calcium** influx with **IC50** of 6.2 μM and 5.3 μM respectively.

Technical Data:

Molecular Weight (MW):	355.39	
Formula:	C ₁₈ H ₂₁ N ₅ O ₃	
Solubility (25°C)	DMSO 32 mg/mL	
* <1 mg/ml means slightly soluble or insoluble:	Water <1 mg/mL	
	Ethanol <1 mg/mL	
Purity:	>98%	
Storage:	3 years -20°C Powder 6 months -80°C in DMSO	
CAS No.:	349085-38-7	

Biological Activity

HC-030031 is a substituted theophylline derivative. Potent and selective TRPA1 inhibitor. HC-030031 can block both inward and outward currents elicited by AITC or formalin rapidly and reversibly and also blocks the activation of TRPA1 by N-methylmaleimide and by electrophilic prostaglandins. It does not block currents mediated by TRPV1, TRPV3, TRPV4 hERG, or Nav1.2 channels. ^[1]

HC-030031 can be delivered to animals orally, by inhalation, or by injection. Oral administration (100 mg/kg) of HC-030031 significantly reversed mechanical hypersensitivity in rat models of chronic

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inflammatory or neuropathic pain, while local injection (100 µg) into inflamed mouse hind paws attenuated mechanical, but not heat, hypersensitivity. ^[2] ^[3]

References

- [1] McNamara CR, et al. Proc Natl Acad Sci, 2007, 104(33), 13525-13530.
- [2] Eid SR, et al. Mol Pain, 2008, 4:48.
- [3] Lennertz RC, et al. PLoS One. 2012;7(8):e43597.



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